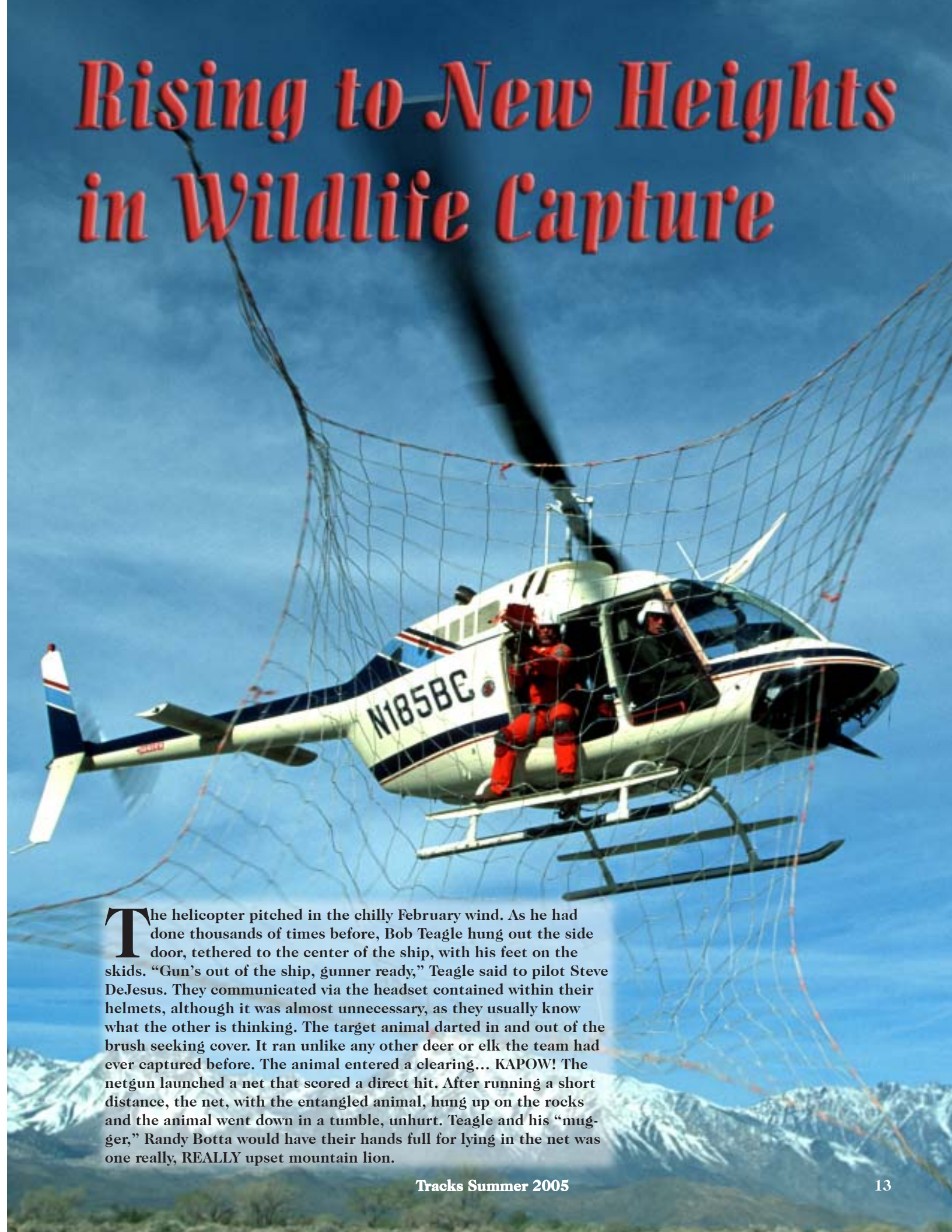
Rising to New Heights in Wildlife Capture



The helicopter pitched in the chilly February wind. As he had done thousands of times before, Bob Teagle hung out the side door, tethered to the center of the ship, with his feet on the skids. "Gun's out of the ship, gunner ready," Teagle said to pilot Steve DeJesus. They communicated via the headset contained within their helmets, although it was almost unnecessary, as they usually know what the other is thinking. The target animal darted in and out of the brush seeking cover. It ran unlike any other deer or elk the team had ever captured before. The animal entered a clearing… KAPOW! The netgun launched a net that scored a direct hit. After running a short distance, the net, with the entangled animal, hung up on the rocks and the animal went down in a tumble, unhurt. Teagle and his "mugger," Randy Botta would have their hands full for lying in the net was one really, REALLY upset mountain lion.

Helicopters employing the use of a net-gunner have revolutionized wild animal capture. A netgun, which is nothing more than a gun that shoots a big net, allows for manual capture of the animal. Manual restraint eliminates the use of drugs with most species and is much safer for the animal.

There is probably no capture team that has caught more animals than contract pilot Steve DeJesus and the Wildlife Investigation Lab's (WIL) Capture Specialist Bob Teagle – easily over 5,000 animals when they stopped counting some time ago.

Getting a net over the animal is only half of the equation. Once down, the animal must be restrained by the third member of the capture team, who is affectionately referred to as the mugger. He or she must jump out of the helicopter and manually restrain a struggling animal that probably thinks it is being attacked by a giant, extremely loud flying predator.

What may be the world's first mountain lion netgun capture started with biologist Randy Botta's ongoing study. That study started with an effort to capture and radio collar 30 deer and as many mountain lions as possible. "The goal is to better understand the relationships of pumas (mountain lions) to deer and bighorn sheep in the Peninsular Mountain Ranges of San Diego County," he explained. Several of the deer were recaptures. Recaptured deer provide valuable information to researchers because a data set already exists for the individual.

Radio collars also have a secondary feature. If by chance the animal is killed, via natural means or otherwise, the radio collar will begin to emit a mortality signal. The collar itself is designed to be worn by an animal that is highly mobile. Deer, for example, would never stay still for more than six hours in one place. If the radio collar lies motionless for more than six hours, which would only happen if the animal were dead, the collar begins to emit a mortality signal. Biologists can then retrieve the collar to determine the cause of death.

Flying through the mountains on the rugged north slope of the Sierra Nevada mountains, DeJesus, Teagle and Botta were after deer in a difficult location. They had a strong signal from a previously collared doe and tracked her in order to hopefully catch any other animals with her. They traced the active signal to a thicket of junipers, sumac and scrub oak. Deer often seek refuge in such areas but are usually too nervous to stay put with a helicopter closing in. The team waited it out in a hover expecting the deer to break cover and run out. The deer didn't run out. Two mountain lions did. "I fully expected that we would flush her and maybe another deer or two out," Botta said. "It was quite a thrill when the first puma was

flushed and then shock when the second puma was flushed and I realized they were feeding on the collared doe."

By extraordinary coincidence, a lion had killed the collared animal recently enough as to not set off the mortality signal. The two lions had been feeding before being interrupted by the helicopter crew.

There was once a time when netgunning deer was considered "cutting edge." The WIL quickly became so proficient that net-gunning became the primary capture method. To up it another notch, they took on the challenge of catching elk. Getting a net on the elk was not the most difficult part; it was what to do with the elk standing there semi-caught in the net. "I can remember net-gunning one giant of a bull elk, well over 800 pounds, with the net caught only around it's huge rack," Teagle said. "We had to figure out how to knock it down and manually restrain it."

Previous page: An exploding netgun from the perspective of the wild animal.

Oppostite page: Teagle leans out of the helicopter and prepares for a shot.

Left: Helicopter, with longline attached, moves in to airlift a captured animal to base camp. Below: Capture crew prepares to hook up a bagged animal for transport.

All photos © Olivier Born.

Since netgunning the first lion the lab has managed to break several other barriers on animals they have never netgunned before such as wild burros, coyotes, even a bobcat. In recent months they blasted through their previous highest elevation ceiling of 10,000 feet on a Sierra Nevada Bighorn Sheep capture. Any higher and several factors must align to even attempt a capture. You must start with the extraordinary skills of pilot Steve DeJesus. The air must be cold with virtually no wind. Weight must be minimized, both equipment and personnel. And of course the animal must present itself. With all those in alignment, they can swoop in and hope for a passing shot. If any one of the safety considerations is not met, they must abandon the effort. At least a dozen attempts had been made in the past only to be aborted.

The team was especially interested in capturing one of a small group of sheep that had lived at especially high altitude all winter. So, to stack the odds in their favor they abandoned every ounce of unnecessary weight possible. They secured the services of Dr. Becky Pierce, a DFG biologist with a reputation for being tough as nails. She also happened to be the lightest mugger they could find. They went to over 11,700 feet, the place where the Sierra Nevada bighorn sheep reigns as king in the highest seat in the land, and caught one! "Because she stayed up high all winter we thought she

would have sacrificed some body weight," Pierce said. "We were surprised to find she was in great condition."

When most wildlife biologists are told that the WIL has been capturing coyotes via helicopter/netgun, they inevitably ask: Why? A skilled trapper can be very effective at catching the critters safely. Dr. Brian Cypher, a research ecologist from the Endangered Species Recovery Program at California State University, Stanislaus, designed a study to monitor the relationship between coyotes and San Joaquin kit foxes, an endangered species. He wanted to determine how the local coyote population was affecting kit foxes. An attempt to trap coyotes in kit fox range would surely inadvertently catch kit foxes. Not to mention that a coyote can be captured only a single time before it learns what a trap is all about and how to stay away from it. With an endearing chuckle, Cypher juxtaposes the two critters. "The two are at the opposite ends of the canid intelligence spectrum," he said. "Kit foxes are just not very wary. They will walk right into a cage trap."

So the WIL was asked to try using a net gun on coyotes. "They are like little rocket ships on the ground," Teagle said of the challenge of getting a net on a 35 pound coyote. But it worked and, 10 coyotes later, valuable data was gathered. They even seized an opportunity to netgun a bobcat. As another kit fox predator, the bobcat would provide bonus data.

After learning of the difficulty of netgunning coyotes and deer, one may not be impressed by the capture of a burro. They are neither fast nor agile, so getting a net on them is not the difficult part. Manually restraining them is the challenge. With a minimum of two experienced lab personnel or field biologists, the head and all four hooves must be restrained. And the burro has the strength to lift a 200-pound man off the ground with a quick thrust of the neck. Domestic burros have a reputation for being mean and ornery. Wild ones have twice that plus a nasty bite. And when the bite, they don't let go. Ask DFG biologist and project leader Jim Davis, who managed to get bit on the foot by a burro even though an eye cover and hobbles had already "restrained" the animal. "It was like being put in a steel vice, there was no way to pull my foot out," Davis said. While he eventually broke free, he developed a newfound respect for the stubborn burro. "It gives you a whole different outlook on capturing animals."

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Left: Teeth provide information about a mountain lion's age and health.

Below left: detailed measurements of every animal and taken and recorded.

Below: A capture crew marvels at the opportunity to process a mountain lion. DFG photos by Patrick Foy.